Vocabulary

Word	Meaning
Consistent	if it has at least one solution.
Row equivalent	if a sequence of row operations transforms one matrix into the other.
Unique solution	if and only if there are no free variables
Homogeneous	Linear systems of the form $A\mathbf{x} = \mathbf{0}$
Inhomogeneous	Linear systems of the form $A\mathbf{x} = \mathbf{b}$ where $\mathbf{b} \neq \mathbf{0}$
Trivial solution	the solution is the zero vector
Linearly independent	if no vector can be made from other vectors
Row operations	Addition, Interchange, Scaling
Pivot position	a leading 1 in the RREF of A
Pivot column	is a column of A that contains a pivot position
Domain	$T : \mathbb{R}^n \to \mathbb{R}^m$; $\mathbb{R}^n$ is the domain of T
Codomain	$T : \mathbb{R}^n \to \mathbb{R}^m$; $\mathbb{R}^m$ is the codomain of T
Image	The vector $T(\vec{x})$ is the image of $\vec{x}$ under T
Range	The set of all possible images $T(\vec{x})$ or simply the **span of A**